A Report Prepared for:

Shell Oil Products, US 2555 13th Avenue SW Seattle, Washington 98134

STORM WATER POLLUTION PREVENTION PLAN SHELL OIL PRODUCTS, US

SEATTLE DISTRIBUTION TERMINAL SEATTLE, WASHINGTON

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1.0 PLAN ADMINISTRATION AND BACKGROUND

1.1 General Plan Information

1.1.1 Purpose and Content

This Storm Water Pollution Prevention Plan (SWPPP) has been prepared for Shell Oil Products, US to meet the SWPPP requirements under Shell Oil's NPDES Permit No. WA-000179-1. This SWPPP describes the operations at the Shell facility located at the Seattle Distribution Terminal, identifies potential sources of storm water pollutants, and identifies current best management practices (BMPs) utilized to reduce the discharge of pollutants in the storm water runoff.

1.1.2 Plan Certification

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Wayne Condit

NW Area Terminal Operations Manager

Shell Oil Products, US

1.1.3 Notification

Shell Oil Products, US will notify the Washington State Department of Ecology (Ecology) Northwest Regional Office Spill Response Team immediately (within 24 hours) at 425/649-7000 in the event of an accidental discharge of oil, chemicals, toxic materials, or hazardous materials into waters of the state or onto land with a potential for entry into state waters, including groundwater.

1.1.4 Reporting

Shell Oil will submit a written spill report to the Ecology Water Quality Program within 5 days after knowledge of an accidental discharge of oil, chemicals, toxic materials, or hazardous materials into waters of the state or onto land with a potential for entry into state waters, including groundwater. Ecology may waive or extend this reporting requirement on a case-by-

case basis. The waiving or extension of this requirement by Ecology will be documented in a phone record or memo to the file.

1.2 Facility Fact Sheet

1.2.1 General Facility Information

The following table presents a summary of general facility information for the Terminal. A map of the facility is enclosed in this Plan as Figure 1.

Item	Description		
Light Oils Operations			
Facility Name	Shell Oil Products, US – Seattle Terminal		
Address	2555 13 th Avenue SW Seattle, Washington 98134		
Parcels	Main Terminal (2555 13 th Avenue SW) North Tank Farm (1835 13 th Avenue SW) Shoreline Manifold (1711 13 th Avenue SW)		
Owner	Shell Oil Products, US P.O. Box 6249 Carson, California 90749		
Facility Contact Telephone No.	Phone (206) 224-0489 (24-hour operations personnel) Fax (206) 224-0479 (24-hour operations personnel)		
Area	20.5 acres		
Facility Type	Petroleum Bulk Distribution Terminal		
Designated Responsible Person	Name: Wayne Condit Title: NW Area Terminal Operations Manager		
Lubricants Operations			
Facility Name	Shell Lubricants, US – Seattle Terminal		
Address	2555 13 th Avenue SW Seattle, Washington 98134		

Item Description		
Lubricants Operations, Cont.		
Parcels	Main Terminal (2555 13 th Avenue SW; all lubricants operations are currently out of service, having been emptied and cleaned, including 3 tank farms, 2 warehouses, boiler, blending building, truck loading rack, and railcar receipt facility)	
Owner	Shell Oil Lubricants, US 440 North Columbia Blvd Portland, OR 97217	
Facility Type	Lubricants Blending and Packaging Plant	
Designated Responsible Person	Name: Todd Colwell Title: Plant Manager Phone: (503) 283-6107	

1.2.2 Main Terminal

The following table presents a summary for the Main Terminal.

Item	Description	
Location	2555 13 th Avenue SW	
Area	17.5 acres	
Types of Operations	83 aboveground product storage tanks within containment walls, piping, underground storage tanks, 2 truck loading racks (one loading rack out of service), railcar receipt facilities (one rack is out of service), pipeline receipt facilities, boiler (out of service), garage (no vehicle maintenance performed), 2 warehouses (out of service), quality assurance laboratory, and office buildings.	
	39 tanks in the main tank farm range from 11,400 to 4,700,000 gallons in size. 13 tanks in the southwest tank farm (out of service) range from 5,200 to 10,700 gallons in size. 19 tanks in the west tank farm (out of service) range from 20,100 to 28,000 gallons in size. 12 tanks in the southeast tank farm (out of service).	
Types of Products	Light fuel oils (gasoline, diesel, Avjet, aviation gas) and fuel additives.	

1.2.3 North Tank Farm

The following table presents a summary for the North Tank Farm. Storm water runoff is not generated in this tank farm due to the unpaved ground surface.

Item	Description	
Location	1835 13 th Avenue SW	
Area	2.5 acres	
Types of Operations	2 aboveground product storage tanks (both 1,500,000 gallons in size) within containment walls.	
Types of Product	Diesel	

1.2.4 Shoreline Manifold Area and Dock

The following table presents a summary for the shoreline manifold area and dock (dock jointly owned with ExxonMobil Corporation). Storm water from the dock is managed by Rainier Petroleum, the tenant of ExxonMobil. Storm water runoff is not generated in the shoreline manifold area due to the unpaved ground surface.

Item	Description	
Location	1711 13 th Avenue SW	
Area	0.5 acres	
Types of Operation	Dock and manifolds controlling flow of product between dock and tank farms.	
Types of Product	Gasoline and diesel.	

2.0 STORM WATER POLLUTION PREVENTION TEAM

The Storm Water Pollution Prevention Team is responsible for developing, implementing, maintaining, and revising this SWPPP. The members of the team are familiar with the management and operations of the facility. The members and their primary responsibilities are as follows:

Name	Title	Responsibilities
Wayne Condit	NW Area Terminal Operations Manager	Participate in and evaluate biannual facility inspections
		• Allocate company resources required for implementation of BMPs
		Participate in employee training
	Terminal Supervisor	Maintain SWPPP-related records
		Oversee BMP implementation throughout the facility
		 Conduct biannual facility inspections
		Conduct employee training
		Sign the SWPPP and non-storm water discharge certifications
Various	Terminal Operators	Participate in employee training
		• Ensure that BMPs are implemented throughout the facility
Frank Takahashi	Environmental Representative	Provide environmental support

The members of the Storm Water Pollution Prevention Team will meet, as necessary, to address new potential sources of storm water pollutants or to resolve any problems related to BMP implementation. Team members will meet after each of the biannual inspections (see Section VII) to discuss the results of the inspections.

3.0 EXISTING AND POTENTIAL POLLUTANT SOURCES

3.1 Inventory of Source Areas

The Shell Oil Products, US facility contains 11 separate areas of activity that involve the transfer or storage of petroleum products. These areas are identified on Drawing 1 in Appendix A. Drawing 1 includes the storm water conveyance and discharge structures, an outline of the storm water drainage areas for each storm water discharge point, paved areas, and buildings and surface water locations. The storm drain system consists of a series of catch basins connected by pipes and is divided into five drainage basins, A through E. Most of the catch basins (Drainage Basins A, B, C, and D) drain to the main oil/water separator. One line of catch basins draining the area immediately east and north of the warehouse drains to the small oil/water separator. The warehouse roof drain discharges to the city storm drain on 16th Avenue SW. There are no storm drains in the north tank farm or the shoreline manifold area (dock operations).

The facility maintains separate plans and documents that identify materials stored on site, current inventories, and spill histories. Sources of this information include the SPCC plan, FRP, Hazcom, and inventory records.

Each area has been examined for potential sources, i.e., activities or practices that may result in the discharge of contaminants into storm water. A review of the materials stored at the various locations revealed that there are no incompatible materials handled at the Shell Oil facility. One of these areas, the warehouse, is not an existing or potential pollutant source. The following 10 areas include existing or potential pollutant sources:

- Tank farms;
- Piping systems;
- Truck loading racks (fuels and lubricants; lubricants rack is out of service);
- Railcar unloading areas (fuels and lubricants; lubricants rack is out of service);
- Oil/water separators:
- Storm drain system;
- Product return-to-storage area;
- Garage;
- Waste storage area; and
- Dock operations

3.2 Assessment of Potential Pollutant Sources

A description of each area with an assessment of existing and potential pollutant sources follows. Note that Lubricants Operations ceased in December 2003 so pollutant sources from that portion of the facility have been reduced and/or eliminated.

Area	Potential Pollutant Source	Potential Pollutant
Tank Farms	Potential releases within tank farms to storm water or groundwater	Light Fuel Oils (e.g., gasoline and diesel). Potential constituents include benzene, attachement to be proposed to be pro
	Product, sludge, and scale in tank bottoms	ethylbenzene, toluene, xylenes, phenols, and lead.
	Water and sediment in catch basins	
Piping Systems	Pipeline system failure (e.g., valve malfunction, pinhole leak) resulting in contact with storm water, groundwater, or surface water	• Light Fuel Oils. Potential constituents include benzene, ethylbenzene, toluene, xylenes, phenols, and lead.
Truck Loading Racks	Residual product spills during fuel loading of trucks	• Light Fuel Oils. Potential constituents include benzene, ethylbenzene, toluene, xylenes, phenols, and lead.
	Release of fire suppression foam	• Fire suppression foam.
	Contact rainwater	• Oil & grease, fuels, metals, and suspended solids in rainwater from trucks.

Area	Potential Pollutant Source	Potential Pollutant
Railcar Unloading Area	Residual spills during unloading of product	• Light fuel oils. Potential constituents include benzene, ethylbenzene, toluene, xylenes, phenols, and lead.
Oil/Water Separators	Residual product and solids in water from areas of the facility	• Light fuel oils. Potential constituents include benzene, ethylbenzene, toluene, xylenes, phenols, and lead.
Storm Drain System	Catch basins	• Light fuel oils (e.g., gasoline and diesel). Potential constituents include benzene, ethylbenzene, toluene, xylenes, phenols, and lead.
		Oil & grease, metals, and suspended solids in rainwater.
Terminal Product Return-to- Storage Area	Minor release during fuel pumping from trucks	• Light fuel oils.
Garage	Drum storage and usage of ethylene glycol	• Ethylene glycol.
Waste Storage Area	Temporary drum storage of hazardous and non-hazardous waste	Maintenance activities (tank cleaning) waste. Potential constituents include benzene, toluene, xylenes, and ethylbenzene; metals.
Dock Operations	Releases into storm water or surface water during unloading of product	• Light fuel oils (e.g., gasoline and diesel). Potential constituents include benzene, ethylbenzene, toluene, xylenes, and phenols.

4.0 BEST MANAGEMENT PRACTICES

Shell Oil Products, US has implemented and has identified operational, source-control, and treatment BMPs for the existing and potential pollutant sources identified in Section III of this Plan. BMPs in place for each activity area are listed in the following table.

In addition to area-specific BMPs, Shell Oil Products, US is committed to employee training. Shell personnel are trained in hazardous materials handling, SPCC requirements, and spill response. Personnel are also required to read and understand the SWPPP and assist in identifying new BMPs or methods to improve existing BMPs. Details related to employee training are provided in the Terminal's *WR Training Management System and Mockingbird online training system*.

Area	Potential Pollutant Source	Potential Pollutant
Tank Farms	Potential product releases within tank farms to storm water or groundwater	• Storm water runoff from the walled containment area is directed to the Terminal's main oil/water separator for treatment prior to discharge.
		• Shell implements extensive tank inspection procedures including visual inspection of tanks, pipelines, flanges, and pumps; cathodic protection system inspections; and integrity tank inspections. These inspection procedures are just one element of Shell Oil's program to protect storm water, groundwater, and surface water. The detailed procedures are presented in the facility's SPCC Plan.

Area	Potential Pollutant Source	Potential Pollutant
Tank Farms, Cont.	Contact Storm water, Cont.	• Shell has installed high liquid level alarms on its light oil (fuel) tanks. These alarms provide early warning in the event of a potential overfill and have minimized the potential for tank overfill.
		• Shell gauges lube tanks prior to transfer, and monitors during transfer. (Lubes operations ceased in 12/03).
		• Shell has installed shutoff valves in tank farms to prevent migration to the oil/water separator in the event of a major product release.
		• Shell conducts daily tank farm inspections to identify potential leaks and spills as part of its operations. The Shell Daily Terminal Inspection Form will be used to log inspection findings.
	Tank water draws	• Floating roof tanks have been equipped with geodesic domes to minimize the volume of water. Water is collected and disposed of off site in accordance with regulatory requirements.
	Product, sludge, and scale in tank bottoms	 Product, sludge, scale, and water generated during cleaning of tanks is disposed of off site at an approved disposal facility.
	Sediment in catch basins	 Catch basins are inspected and sediment removed, as required, to limit excessive accumulation. Sediment is disposed of off site at an approved disposal facility.

Area	Potential Pollutant Source	Potential Pollutant
Piping Systems	Pipeline system failure (e.g., valve malfunction, pinhole leak) resulting in contact with storm water, groundwater, or surface water	 Shell conducts a visual inspection of the transfer line starting from the manifold area to the individual tank once during each pipeline receipt. Shell visually inspects all aboveground pipelines. Shell conducts biannual visual inspections of surface conditions along and adjacent to buried piping. Additional inspections are also conducted when deemed necessary, such as pressure testing, acoustic testing, etc.
Truck Loading Racks	Residual product spills during fuel loading of trucks	• The light oil load rack is equipped with a concrete pad, concrete curbs, and a series of strip drains that drain to a 10,000-gallon underground oil/water separator and then to two 2,000-pound carbon vessels for treatment prior to discharge to the main oil/water separator. All potential spilled products would be directed into this treatment system prior to discharge. The lube oil load rack drains to a catch basin and then to the main oil/water separator for treatment. (Lubes operations ceased in 12/03).
	Release of fire suppression foam	• Fire suppression foam is not released during foam tests. During tests, a small amount of foam is diverted to a sample container.

Area	Potential Pollutant Source	Potential Pollutant
Truck Loading Racks	Contact storm water from rainfall	Both racks are constructed with a roof canopy reducing the volume of contact storm water.
Railcar Unloading Area	Residual spills during unloading of product	• The railcar areas are equipped with containment, drip pans, or concrete sumps. Residual spills during unloading drain into drip pans and sumps, and are transferred into a tank for off-site treatment.
Main Oil/Water Separator	Residual product (oil) and solids (sludge)	All water is pumped through a Storm water 360 2-stage filtration system for reduction of zinc prior to discharge.
		• Oil is skimmed off and pumped to Tank 400 and recycled.
		 Sludge is collected on an as- needed basis and disposed of at an approved facility.
		• Shell has implemented operation, maintenance, and monitoring procedures for the main oil/water separator. These procedures include daily inspections, monitoring, and monthly collection of water samples for chemical analysis in accordance with the facility's NPDES permit.
Other Oil/Water Separators	Residual oil	Shell conducts daily visual inspections and monthly monitoring in accordance with its NPDES permit.

Area	Potential Pollutant Source	Potential Pollutant
Storm Drain System	Catch basins	 Catch basins are inspected and sediment removed, as required, to limit excessive accumulation. The sediment is disposed of off site at an approved disposal facility. Area sweeping will be conducted, as needed, to minimize heavy dust and debris and to reduce potential migration of metals into storm water.
Terminal Product Return-to- Storage Area	Minor release during fuel pumping from trucks	• This area is constructed of concrete, which is sloped to a catch basin. The catch basin drains to the truck rack carbon treatment system. Any potential release would be collected in the underground oil/water separator, skimmed off, and transferred to a holding tank. Recoverable product is transferred off site, and contact water is treated by the carbon system and main oil/water separator prior to discharge.
Garage	Drum storage of ethylene glycol	Drums are stored on a concrete bermed area with a roof canopy.
Drum Storage Area	Drum storage of finished materials	 Drums, or similar containers, will be stored inside or, if outside, in a bermed, covered area. Empty drums shall be stored with all openings plugged, in an upright position, and at least 20 feet from a storm drain.

Area	Potential Pollutant Source	Potential Pollutant
Drum Storage Area Cont.	Temporary drum storage of hazardous and non-hazardous waste	 Drums are stored within a diked concrete containment area. Roof over area minimizes storm water contact.
Dock Operations	Releases into storm water or surface water during unloading of product	• Drip trays and a sump have been installed at the dock. Oil spilled when making and breaking connections are collected in drip trays or a sump. Accumulated oily waste is transferred to a tank at Rainier Petroleum where it is held until transported off site for disposal.
		 All shore valves are closed and locked when not in use.
		• An authorized PIC (Person-in-Charge) is stationed on the dock during loading and unloading operations to close the shutoff valves in case of an accidental release. The PIC is equipped with a two-way radio to provide constant communication with the control office.
		• Shell has permanently installed 700 ft of petrobarrier below the dock.
		• Shell has 1,750 feet of boom on a reel ready to deploy around a vessel in the event of a spill.
		• Shell conducts operations in accordance with the USCG Dock Operations Manual.

5.0 EVALUATION OF NON-STORM WATER DISCHARGES

Some non-storm discharges are covered under the facility's NPDES permit. Testing for the presence of non-storm water discharges not covered by the permit was conducted at the facility. Testing included visual observation of flows and odors, dye testing, and validation of accurate piping schematics. The results of this evaluation have been documented on the drainage map for the facility (see Drawing 1).

6.0 RECORDKEEPING AND REPORTING

This SWPPP, all inspection and site compliance evaluation records, preventive maintenance records, and reports of spills or other incidents will be retained at the Shell Oil Products, US site for at least five years after the date of the report, data, or submission. The records include:

- The completed Shell Daily Terminal Inspection Forms;
- The completed seasonal inspection forms (located in Appendix B);
- The inspection log for the oil/water separator;
- Completed spill reports; and
- Operation and maintenance logs.

The period of retention for these records will be extended upon request by Ecology.

These records will be made available, upon request, to a representative of Ecology.

7.0 FACILITY INSPECTION

7.1 Purpose of Inspection

The designated member(s) of the Storm Water Pollution Prevention Team will conduct biannual inspections of the facility. One of the inspections will be performed during the dry season (May 1 to September 30) and the other during the wet season (October 1 to April 30). The biannual inspections are intended to determine whether potential pollution sources are being sufficiently controlled and whether all BMPs specified in the Plan have been properly implemented. Each inspection will be documented, and the recorded results will be retained at the facility.

7.2 Wet Season Inspection – October 1 to April 30

The wet season inspection will be conducted during a rainfall event to verify that the description of potential pollution sources is accurate, that the site map is accurate and updated to reflect current conditions, and that the BMPs and other controls to reduce pollutants in storm water discharges associated with site operations are being adequately implemented. The wet season inspection will include observations of the presence of floatables, suspended solids, oil and grease, discolorations, or odor in the storm water discharges.

7.3 Dry Season Inspection – May 1 to September 30

The dry season inspection will determine the presence of unpermitted non-storm water discharges such as domestic wastewater, unpermitted non-contact cooling water, or unpermitted process water to the storm water drainage system. If an unpermitted, non-storm water discharge is discovered, Shell will immediately try to locate and mitigate the source of the unpermitted discharge, and shall immediately notify the Department.

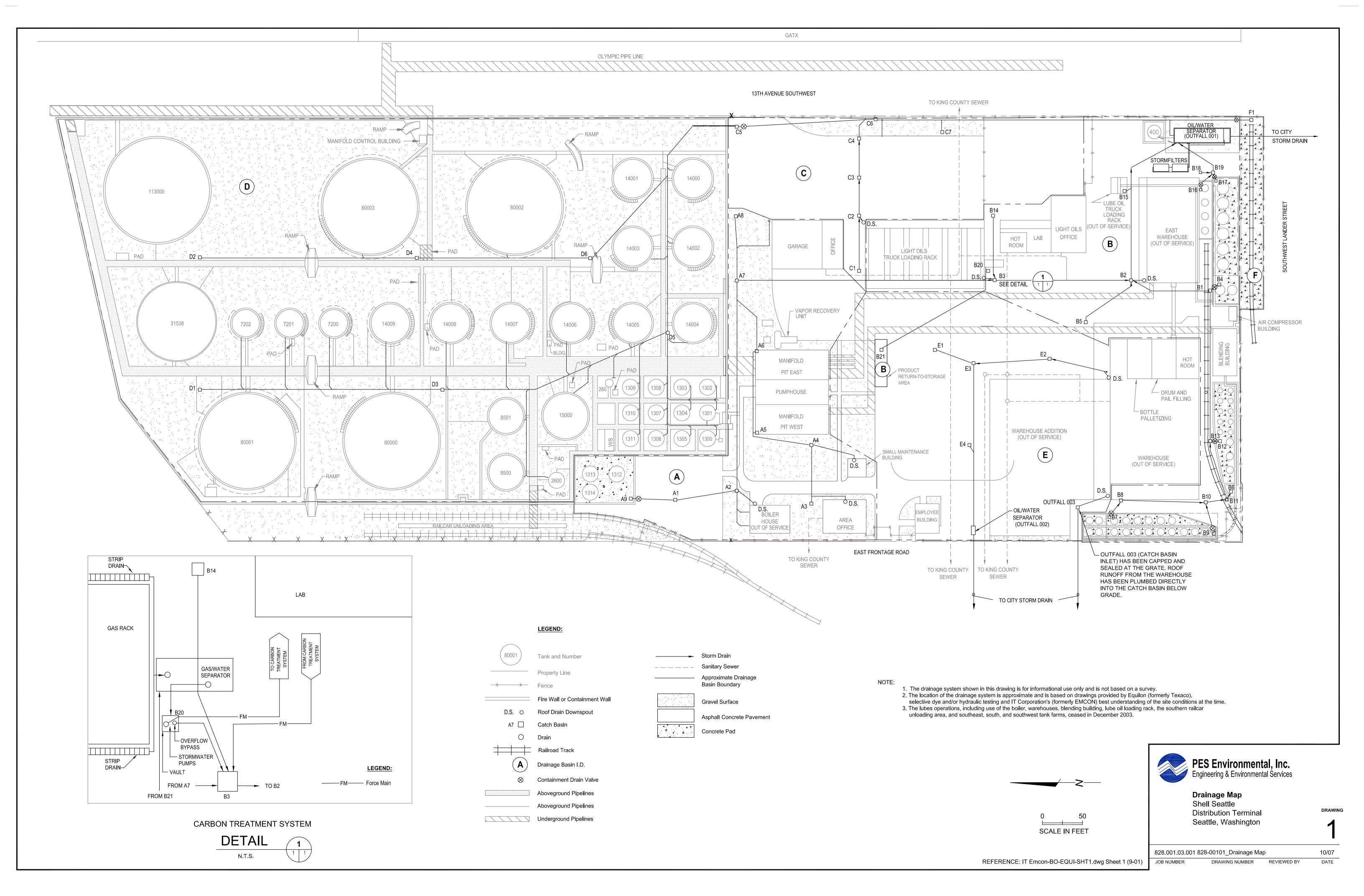
7.4 <u>Inspection Records</u>

Shell Oil Products, US will complete inspection report forms summarizing the scope of the evaluation, the person(s) conducting it, the date, major observations, and findings, and actions taken will be prepared and retained as part of this SWPPP. A sample is included in Appendix B.

The report will identify any incidents of noncompliance. When incidents of noncompliance are encountered, they will be traced to the source. If the noncompliance is from an on-site source, Shell will implement changes to prevent future reoccurrence. The Shell NW Area Terminal Operations Manager and the Shell Terminal Supervisor or their authorized designees will sign the report.

APPENDIX A

SITE DRAINAGE MAP (DRAWING 1)



APPENDIX B EXAMPLE SEASONAL INSPECTION FORMS

Shell Oil Products, US Seasonal Inspection Checklist Wet Season Inspection (October 1 - April 30)

Must be completed by a member of the pollution preven	ation team.	
Name:	Date of inspection:	
Is the description of the potential pollutant sources descri	ribed in this plan accurate?	yes/no?
If no, describe changes		
Is the site map accurate? yes/no? (if no, describe)		
Are the BMPs discussed in this permit being implement	ed and adequate?	yes/no?
(if no, describe)		
Reviewed/Approved NW Area Terminal Operations Manager Shell Oil Products, US	Reviewed/Approved Terminal Supervisor Shell Oil Products, US	

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Shell Oil Products, US Seasonal Inspection Checklist Dry Season Inspection (May 1 - September 30)

Name:	Date of inspection:		
Is non-storm water being discharged to the storm water sy	stem? yes/no? (if yes, describe)		
Follow up			
If any problems are found during seasonal inspection, desc	cribe follow up actions and schedule the correction.		
Reviewed/Approved NW Area Terminal Operations Manager Shell Oil Products, US	Reviewed/Approved Terminal Supervisor Shell Oil Products, US		

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